

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

Mar

FEB 24 BBA

Docket (No." 50-412

. .

.

Thomas M. Novak, Assistant Director MEMORANDUM FOR: for Licensing, DL

FROM:

Rep. te

270,3

6

190306048

Daniel R. Muller, Assistant Director for Radiation Protection, DSI

SHR. IFCT . METEOROLOGY AND EFFLUENT TREATMENT BRANCH INPUT FOR THE DRAFT SAFETY EVALUATION REPORT PERTAINING TO THE BEAVER VALLEY UNIT NO. 2 FINAL SAFFTY ANAL VETE DEDODT

DIANT NAME: Reaver Valley, Unit No. 2 LICENSING STAGE: OL applicant DOCKET MUMBER: 50-412 RESPONSIBLE BRANCH: LB#3; Lisa Lazo, PM REVIEW STATUS: Draft SER input complete with some open items

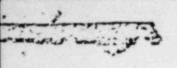
Enclosed is the input to the draft Safety Evaluation Report (SER) regarding the meteorological and radiological effluent treatment sections of the Beaver Valley Unit 2 Final Safety Analysis Report. At this time, some additional information and analysis is required to close out several open items. These items are listed below:

Unresolved items in Section 2.3 are the rate of pressure drop for the 1. design basis tornado, the 100-year return period snow pack, extreme temperature design of HVAC systems, representativeness of the location of the meteorological tower, and routine effluent release locations, characteristics and composition. Ainsid 4/30/83

- Section 6.5, ESF filtration systems, unresolved issue rugarding testing 2. of ESF filter systems.
- Section 11.3, Gaseous Waste Processing Systems, unresolved issues 3. pertaining to the containment vacuum system exhaust filt ration (i.e., unsatisfactory iodine removal filtration system).

Section 15.7.3, radioactive release due to liquid tank ailures, the 4. staff is presently performing a verification analysis regarding dose consequences of a liquid radwaste tank or component rupture. This analysis will be completed by April 1984 for incorporation into the final SER.

Section 11.3, Gaseous Waste Processing Systems, the staff is presently 5. performing a verification analysis for site boundary doses due to gaseous effluents. This analysis will be completed by April 1984 for incorporation into the final SER.





T. M. Novak

FEB 24 1984

This review was performed by Earl Markee (x27635), Meteorology Section, and Robert Fell (x27642), Effluent Treatment Systems Section, Meteorology and Effluent Treatment Branch. Please contact the respective reviewers for any questions.

- 2 -

Original signed byf

Daniel R. Muller, Assistant Director for Radiation Protection Division of Systems Integration

Enclosure: As stated

cc: R. Mattson W. Ganmill L. Lazo C. Willis I. Spickler E. Markee R. Fell

DISTRIBUTION: Docket File 50-412 METB Docket File METB Reading File ADRP Reading File

	KI #			CALE		
-	DSI: RP : ME TR	DS.D AP : NETB	NSI : RP METH	DSI:RP:METB	IS I (BP) HEATB	DS1:RP
-	RWFell:dlj	Etimatikee'	ISpickler	CAWillis	WP Garpmint 1	DRM01)
DATE	02/41/84	02/ 24 /84	02/2 /84	02/2 /84	02/29/84	02/ 184
IPC FORM 318 110 601 NRCM 0240			OFFICIAL RECORD COPY			A US AND 1899 -422 -

Heavy snowfall is not uncommon in the region, and roof loads may accumulate due to a wintertime precipitation mixture of snow, ice, and rain. Maximum monthly snowfall observed at Greater Pittsburgh Airport was 1021 mm (40.2 inches) in January 1978, and the maximum snowfall in a 24-hour period at Pittsburgh was 373 mm (14.7 inches) in March 1962. Ice storms, which can plug drains and scuppers as well as disrupt offsite power, are relatively frequent. The applicant estimates that ice pellets or freezing rain may occur about 8 times per year in the Beaver Valley region, with a glaze accumulation of 0.5 inches or greater expected about once per year. The applicant has estimated the weight on the ground of the 100-year return period snowpack to be 19.5 psf. To determine the probable maximum snowload for consideration in the design of safety-related structures, the applicant has added the weight : f the 48-hour probable maximum winter precipitation (equivalent to 71.2 psf) to the weight of the 100 year return snowpack for a total weight of 90.7 pst_

- 5 -

The staff's estimate of the snowpack based on ANSI 58.1-1982, extrapolated from the 50-year return period in the standard to a 100-year return period, produces a weight of near 30 psf. This snowpack weight, when added to the weight produced by the 48-hour probable maximum winter precipitation (about 70 psf) produces a design snowload of 100 psf. This will be an open issue only if the design of the Category I structures cannot accommodate a snowload of 100 psf. The acceptability of the applicant's design of safety related structures, with respect to the staff's estimate of design snowload and load combinations, is discussed in Section 3.8.1.

Large-scale episodes of atmospheric stagnation occur in the region. About 41 atmospheric stagnation cases totaling at least 164 days were recorted in the area in the period 1936-1975.

As discussed above, the staff has reviewed available information relative to the regional meteorological conditions of importance to the safe design and siting of this plant in accordance

- 6 -